

Introduction

- . Hello and thank you for inviting me to come and speak with you today.
- . I am especially glad to be here talking about Antarctica, a subject that has unfortunately sat at the outer periphery of debates about Australia's national interests, especially with regard to what are its constantly evolving security dynamics.
- . Thankfully, this is beginning to change. Australia is starting to recognise the importance of Antarctica.
 - We are having more national discussions about Antarctica, there have been a number of senate inquiries implemented recently, and the Government announced the Year-Round Aviation Access proposal.
 - The importance of Antarctica is entering the national conscience.
- . I am here to discuss the strategic dimensions of Antarctica, we shouldn't lose focus of exactly why it is really important.
- . My aim today is to give you a broad idea of the strategic factors that inform our engagement with Antarctica, and how Australia is working towards securing our interests in the face of a potential heightening of strategic competition.
 - In doing this I'll explain the nature of Defence's role in supporting the Australian Antarctic Program, and outline the forms of support we provide.
 - I will also look at the factors driving strategic competition in the Antarctic, and why this may escalate in the future.
 - It will be useful to examine the concept of 'dual-use.' The militarisation of the Antarctic revolves around this concept, and it is valuable to understand it in order to appreciate the military opportunities in Antarctica.
- . Firstly though, I will explain my relationship with Antarctica. Strategic Policy Branch at Defence works both with other sectors of Defence, as well as with other Departments, to formulate policy on Antarctica.

- . To begin with, it should be noted that Antarctica is a complex issue to talk about because the environment we are dealing with is far from traditional.
 - In global terms, this is an exceptionally unique operating environment without historical precedent.
- . Here we have a location that is 2000 nautical miles from the Australian mainland.
 - Where the weather is harsh, unpredictable and unforgiving.
 - Where, in many areas, the terrain and conditions make access and operation unsustainable.
 - Where the attribution of sovereignty is unresolved.
 - Where a multitude of different countries cooperate without conflict to conduct scientific research and protect the environment.
 - And where there is a comprehensive treaty framework protecting the continent from power-plays, economic exploitation, and environmental damage.
- . This isn't a traditional security environment, and so it needs to be approached with a different frame of reference.
 - Analysis that may apply to China's strategic interests in the South China Sea, or Russia's interests in the Ukraine, simply does not hold water when it comes to Antarctica.
 - : You cannot observe China's behaviour in the South China Sea and extrapolate that to predict what it will do in Antarctica.
- . It also not the Artic.
 - As they are both Polar Regions, Antarctica and the Artic often gets lumped into the same category, however there are stark differences between the two.
 - Unlike the Artic, Antarctica is far from the province of Great Powers, and the strong treaty system in place prevents the kind of overt competition that is on display in the Artic.

- . So we need to be careful in talking about traditional security threats, because in strategic terms, Antarctica is clearly something very unique.
- . That is not to say that we can't learn from the past behaviour of Antarctic states, just that direct inferences and comparisons are unsuitable.

The role of Defence in Antarctica

- . I want to spend a short time looking at Defence's relationship with Antarctica, and how Defence assists whole of government efforts in securing Australia's interests in Antarctica.
- . Defence's official position on Antarctica is set-out in the 2016 Defence White Paper.
- . Here we assessed that the 'Australian Antarctic Territory faces no credible risk of being challenged in such a way that requires a substantial military response for at least the next few decades.'
 - This in itself is quite a bold statement. To stretch our foresight over the course of decades and to attempt to make accurate policy predictions seems to be an exercise of folly.
 - : Thirty years is a long time.
 - : Thirty years ago the Soviet Union was still in power, there had not been an information revolution, and China's economic rise was an improbable hypothetical.
 - However, we need to remember that Antarctica is not a traditional security environment, and this allows us to make predictions with a reasonable sense of certainty.
 - As I will discuss, there are distinct features of the Antarctic Treaty System and environment which promote stability and reduce the likelihood of an antagonistic state from making an unexpected power play.
 - What this amounts to is that, for an ambitious, revisionist state, it makes a lot of sense to play the long-game to achieve its strategic objectives.

- : In other words, for those who are looking to undermine the treaty framework and reap a significant strategic benefit from Antarctica, you are going to need to set-up camp and wait for the all the right elements to align.
 - : Fundamental to that consideration will be the use of the grey-zone, or hybrid tactics, that could further national interests without resorting to military force.
- . The White Paper goes on to state that 'it is in our interests to work with like-minded countries to prevent any militarisation of Antarctica which could threaten Australia's sovereignty over the Australian Antarctic territory and its sovereign rights over its offshore waters.'
- . Following this we emphasise our support for the Antarctic Treaty system, and the frameworks which protect Antarctica's environment and fisheries.
- . What does this mean in practice?
- . It is important to keep in mind that Defence does not perform or seek a leadership role in Australia's Antarctic programme.
 - Rather, the ADF contribute to whole-of-government efforts by providing access and logistics support to better enable scientific research in the Antarctic.
- . There are a number of reasons that Defence only performs this support-function.
 - There are, of course, treaty constraints on military activity in the Antarctic. However, Defence's role is also limited by:
 - : The unique operating environment – this is a harsh, distant environment that limits the scope of support we can provide – and,
 - : Competing priorities for the development of Defence capabilities.
- . So what exactly does Defence do for the Antarctic program?

- . ADF support to the Antarctic program is primarily provided under Operation SOUTHERN DISCOVERY, and is coordinated at an interdepartmental level by a Memorandum of Understanding between Defence and the Department of the Environment and Energy on Cooperation in Support of the Australian Antarctic Program.
- . In practice this support includes
 - Geospatial and engineering support.
 - : Last summer season Defence provided an army survey capability – this may be required in the identification and naming of geographical features in the Territory, or even in the development of new run ways.
 - Antarctic charting.
 - : The Australian Hydrographic Office is conducted by the Royal Australian Navy and has responsibility Antarctic and Southern Ocean charting.
 - : Last season this consisted of an Antarctic Survey vessel and for the deployment of Navy personnel.
 - Defence is also provisioned to conduct search and rescue functions, as well as aeromedical evacuation operations
 - Perhaps most importantly, Defence provides logistics support functions in the form of heavy-lift support.
- . The Royal Australian Air Force operates a C-17A Globemaster on a regular basis for flights between Hobart and Wilkins Aerodrome.
 - These flights allow the delivery of cargo and equipment that would otherwise take months to arrive by ship.
 - : This means important equipment can be made more readily available through offsetting the dependence on transport by sea.
 - Additionally, the C-17s can perform air drops for items like aviation fuel, and can contribute to search and rescue support.
 - The Air Force conducted six of these flights last season.

- . Defence also supports maritime resource protection operations in the fisheries of the Southern Ocean and Antarctic waters.
 - In the past, our contribution to preventing illegal fishing in the Southern Ocean has been conducted both independently and in partnership with other national and international agencies.
- . It should also be mentioned that Antarctica provides great opportunities to cooperate with the militaries of other countries.
 - Antarctica is a very cooperative environment and it provides a great opportunity to engage with other countries' defence forces in coordinated activities to share operational expertise, and to boost our Defence-relations.
 - As it stands we have collaborated with the New Zealand defence force on logistics activities, and we are currently organising a joint activity with the Chilean air force.

Australia's interests and a difference of approaches

- . What interests are Defence supporting?
- . Australia has strong and enduring national interests in Antarctica and the Southern Ocean.
 - There is, of course, our sovereign claim, however our interests also span to areas like environmental protection and scientific research, as well as to the economic benefits to the Tasmanian economy and our burgeoning tourism opportunities in Antarctica.
- . The Government has assessed that the best way to protect these interests is to maintain a permanent and broadly based presence in the region, and to continue to run a world-class Antarctic science programme.
- . Most importantly Australia has a deep and abiding interest in ensuring that the Antarctic Treaty System remains strong, stable and of contemporary international relevance.
- . And Defence shares this interest.
 - A strong, stable and effective Antarctic Treaty System supports Australia's strategic interest in a rules based global order by reducing

strategic competition in the Antarctic region and by creating norms on non-militarisation, peaceful use, environmental protection and the ban on mining.

- There is also an economic dimension in that a strong Treaty System will alleviate the security costs that would be incurred by strategic competition to our south.
- . This is an important and interesting distinction to appreciate. Australia's strategic interests are best served by preserving the status-quo.
- . We are already in a very advantageous position.
 - We have an existing, partially recognised sovereignty claim.
 - We have a large, well-financed and permanent presence in Antarctica, with more than 100 years of Antarctic experience to back it up, and
 - We have the clear advantage of relative proximity.
 - : We are one of the few countries that can currently fly direct to the Antarctic, and this bestows upon us the role of a gatekeeper to Antarctica.
 - : For example, currently, Chinese researchers who travel by air depend on an Australian company flying from Hobart to reach Antarctica.
- . In contrast, for other states without clear Antarctic connections, there may be advantages in pushing the boundaries of the Antarctic Treaty System.
 - This may come in the form of things like over-fishing, not declaring military activities, and not declaring certain kinds of scientific research.

Strategic competition

- . Earlier, I mentioned our expectation that if there is to be strategic competition in Antarctica, that it will take place over a long period of time.
 - That, because of this, we don't expect there to be an event that warrants a substantial military response for at least the next few decades.
- . We expect strategic competition to increase as time goes on.
- . This is for a number of reasons.
- . By virtue of the unique Antarctic environment, and the strong treaty framework that protects it, there are distinct strategic pressures that may increasingly drive competition alongside
 - the advancement of technology,
 - the depletion of fossil fuels and rare earths,
 - the potential weakening of the Antarctic Treaty System, and
 - the consolidation of states' Antarctic presence.
- . At the moment, there are strong norms in place that prevent actions overtly against the provisions of the Treaty System.
 - States who conduct activities prohibited by the Treaty System risk significant condemnation and reputational harm.
- . However, there is the concern that, over time, the norms of the Treaty System will be gradually eroded by states conducting actions technically prohibited by the Treaty System, but not egregious enough to warrant significant sanction.
 - This is very possible. As you saw earlier today, the treaty framework allows for a substantial difference in interpretation.
 - : Allowances for dual-use, and scientific research on minerals may allow for the Treaty system to be subject to 'death by a thousand minor-infractions'.

- Incrementalism is one threat vector, however grey zone exploitation is another possibility
 - : The use of civilian-hulled vessels to assert access to and exploitation of resources.
- . Perhaps the most important expected driver of strategic competition is the resource potential in Antarctica and the Southern Ocean, and how this interest might increase in the future as resources elsewhere become scarcer.
- . This is an opportunity that Antarctic nations are fully aware of.
- . For the most part, however, extraction of these resources is unviable in both an operational sense, and an economic sense, not to mention that it is expressly prohibited by the Madrid Protocol.
 - At this stage the cost and effort involved in exploring, exploiting, and transporting minerals, oil and gas from Antarctica vastly outweighs any benefit one could obtain from the enterprise.
- . However, this could change.
- . Key indicators and warnings could include
 - Technology advances, and
 - The depletion of fossil fuels are depleted, this cost/benefit analysis will start to swing in favour of extraction.
 - The depletion of fishing stocks to the north, including krill and other sources of protein.
- . Some of these could take decades and occur slowly. So already you can begin to see the kind of timeline we are dealing with here.
- . For now, states can only undertake preliminary exploration of resources under the pretence of scientific research.
 - The extent to which this actually occurs is a topic of debate.
- . However, while these issues are a cause for concern, we should be aware of the danger in conflating legitimate Antarctic activity in support of

scientific research with posturing for a sovereignty claim, or for resource exploitation.

- The current Antarctic Treaty System is working exceedingly well no matter how you measure its success – states are cooperating together, they are sharing scientific research and, as far as we know, they are upholding the values of the Treaty framework.
 - There is the risk that making inaccurate allegations against a state suspected of prohibited activities will ostracize the country and feed revisionist intentions.
 - For example, we have been trying to bind China to norms of international engagement, and its Antarctic activities are certainly fulfilling that objective. Accusing it of nefarious actions could be highly counter-productive.
- . So with that caveat given, I would like to examine the concept of ‘dual-use,’ as this is a significant potential drive of strategic competition.

Dual-use and the militarisation of the Antarctic

- . Article I of the Antarctic Treaty, which allows the use of military personnel or equipment for scientific research or for any other peaceful purpose, is broad enough in scope to allow for a number of differing interpretations.
 - Many of the concerns surrounding military activity in Antarctica depend on how broad ‘dual-use is taken to apply.
- . This threshold between civil-use and military-use is certainly liable to be tested.
 - There are a range of valuable opportunities to enhance military capability by implementing certain technologies in the Antarctic.
- . Antarctica is especially useful for command, control, communications, computers, surveillance and reconnaissance system capabilities, as well as missile timing and missile positioning.
- . Perhaps most important is Antarctica’s ideal environment for basing satellite receiving and processing stations.

- As the recent ASPI report identified China is utilising this capacity to roll out the BeiDou navigational system – a dual civil-military technology that is essentially China’s equivalent of GPS.
- . Antarctic environment is also uniquely adapted to basing space object surveillance capabilities.
 - In terms of civil use these capabilities are useful for monitoring satellite-damaging debris in space.
 - However, it also has the dual-use of tracing and monitoring satellites of other nations.
- . As time goes on, in much the same way that the Treaty System may be weakened by minor infractions, the interpretation of dual-use may widen to an extent that the Antarctic becomes increasingly militarised.
- . This is a deep concern.

Conclusion

- . We have cause to expect heightened levels of strategic competition as time goes on.
- . However, even if other states are doing so, Australia should not push the boundaries of the Antarctic Treaty System.
- . Australia’s interests, with respect to sovereignty, non-militarisation, the mining ban, and other environmental protection norms, are protected under the Treaty System.
 - We have a strong interest in preserving the status quo.
- . Australia and other likeminded states need to maintain a collective influence in the Antarctic Treaty System in order to prevent the gradual undermining of its strength.
- . This does not mean that we cannot, or should not, utilise the opportunity for implementing dual-use capabilities where we can, but priority should always favour legitimate scientific utility.



Australian Government
Department of Defence

Antarctica

Defence Policy and Planning

[REDACTED]
1 June 2019
IFRS Future Strategic Leaders Congress



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Aim

- To describe the strategic factors that inform Australia's engagement with Antarctica, and factors that may drive strategic competition.
- To explain the role of Defence in Antarctica, and how Defence contributes to the Australian Antarctic Program.
- To explore the concept of 'dual-use' capabilities.



2016 Defence White Paper

The Australian Antarctic Territory faces no credible risk of being challenged in such a way that requires a substantial military response for at least the next few decades.

The role of Defence in Antarctica

- The Australian Defence Force provides niche support to whole-of-government operations in Antarctica under Operation SOUTHERN DISCOVERY.
- This consists of:
 - Geospatial and engineering support
 - Antarctic charting
 - Search and rescue/Aeromedical
 - Heavy air-lift capability
 - Support for maritime resource protection operations
 - Defence engagement



Protecting Australia's Antarctic interests

- Environmental protection
- Scientific research
- Economic interests
- Best protected by
 - Maintaining a permanent and broadly based presence in Antarctica
 - Running a world-class science program
 - Ensuring that the Antarctic Treaty System remains strong, stable and of contemporary international

Drivers of strategic competition

- Potential weakening of the Antarctic Treaty System
- Advances in technology
- Depletion of fossil fuels
- Increasing presence and investment in Antarctica
- Widening interpretation of 'dual-use'

‘Dual-use’ and the militarisation of the Antarctic

- Article I(2) of the Antarctic Treaty wide enough for conflicting interpretations.
- Opportunities to increase military capacity
- Satellite receiving and processing stations
 - Civil-use: to monitor space debris to protect satellites
 - Dual-use: to track and monitor the satellites of other nations



Questions?



